

SOMATIZATION IN CHILDREN AND ADOLESCENTS

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THE CONCEPT OF SOMATISATION

Pediatricians see children with Somatisation practically everyday. Unexplained medical symptoms, like headache, stomach-ache, and palpitations are common presentations seen by any pediatrician and mostly they are transient. However in a significant proportion of children, it can become entrenched and/or recurrent.

In its narrowest sense, somatisation is a term used to denote psychological difficulty or distress that is manifested through physical (somatic) symptoms.¹ The child presents with a physical symptom but no organic condition is found which can explain the symptom or even if a physical condition is present, it does not fully account for the symptoms severity and functional impairment.²

In a wider context, somatisation is not only a disease entity but a process whose result is the illness experience of medically unexplained symptoms.

Several terms have been used to describe this clinical problem—somatisation, somatoform disorders, abnormal illness behaviour, medically unexplained symptoms, and functional symptoms. In this paper, the terms medically unexplained symptoms and somatisation are used interchangeably.³

One key feature of this group of disorders is that the child and the family are unable to establish a connection between physical symptoms with psychological distress e.g. they do not see the connection between recurrent abdominal pain where no organic etiology is found and the stress of examinations. This leads to pursuit of medical treatment (consultation behaviour) to seek an explanation and treatment of the distressing physical symptom. For the child, there is limitation of normal activities with adoption of sick role (illness behaviour).¹

In somatisation, production of these symptoms are not under conscious control or intentional. If the symptoms are thought to be produced deliberately, then it is known as Factitious Disorder or Malingering. Factitious Disorder is a separate disorder and is not under the purview of this review.

CLASSIFICATION OF THE DISORDER

The classification of this group of disorders is poorly organised and conceptualized. Wessely et al went as far as stating that the classification was a “mess”.³ The diagnostic categories which are described in DSM IV and ICD 10 were formulated for an adult population⁴. Therefore using those in pediatric population is cumbersome. The key problems in the classification of medically unexplained symptoms are as follows :⁵

Diagnoses are not based on positive criteria but on the exclusion of organic disease.

- They are not supported by substantial empirical evidence.
- They have been developed in highly selected adult patient populations.
- They only include illness of at least 6 months' duration, whereas in children most of these symptoms are short lasting or transient.

Adding to the confusion is the fact that different medical specialities have developed their own syndrome labels to classify patients presenting with somatic symptoms for which no satisfactory physical cause is found, as for example, chronic fatigue syndrome (CFS), recurrent abdominal pain (RAP), fibromyalgia, irritable bowel syndrome (IBS) and chronic benign pain syndrome, tension headache, Non Epileptic Attack Disorder etc.

DIAGNOSTIC CATEGORIES AND CLINICAL CHARACTERISTICS

In ICD-10,⁶ there are two broad categories which describe medically unexplained symptoms.

They are

1. **Dissociative Disorders** - They are also known as conversion disorder and previously was known as hysteria. There are 10 subcategories in this group of disorder. The common theme in these disorders is that there is a complete or partial loss of memory or control over bodily movements or loss of sensation. The symptoms presentation is usually associated closely in time with traumatic or upsetting events or disturbed relationships. The onset and termination of dissociative disorders are mostly sudden.

In Pediatric clinical practice dissociative convulsions (pseudo-seizures) and dissociative motor disorders (paralysis) are the commoner presentations.

2. **Somatoform Disorders** - There are 7 subcategories respectively in this group of disorder. The key feature of this group of disorder is presentation with physical complaints. The physical complaint can involve any system of the body but common presentations include headache, abdominal pain, joint pain or low energy or a combination of the above.

Application of specific diagnosis of Somatoform disorder as described in ICD 10 is only occasionally possible in Pediatric practice. ICD 10 mandates that the unexplained medical symptom/s be present for 6 months to 2 years. The majority of the presentations in common pediatric practice is usually of shorter duration.⁵

PREVALENCE

Studies to elicit rates of medically unexplained symptoms in children and adolescents have been done both in community samples and in those attending Pediatric primary care clinics.

The general population rates are about one in ten children complain of recurrent physical symptoms, the majority medically unexplained. This is a phenomenon seen throughout childhood, though certain symptoms may be more prevalent at different developmental stages: for example, abdominal pains in preschoolers, headaches becoming more noticeable in older children^{7,8}. These general population rates are mirrored in paediatric primary care consultations.

Campo et al.⁹ enquired about unexplained aches and pains amongst children attending paediatric primary care clinics : 13% were identified by paediatricians, 2% as 'frequent' somatisers (i.e. complaining 'often') and 11% as complaining 'sometimes'.⁹

SPECIFIC SYNDROMES

PSEUDOSEIZURES^{2,10}

The most commonly reported conversion symptom in the recent child and adolescent psychiatric literature is pseudoseizure. Pseudoseizure is an event that resembles a sudden convulsive event but exhibits no EEG evidence of a seizure and does not follow the typical pattern of a known seizure disorder. Although the convulsions of epilepsy may be difficult to distinguish from pseudoseizures, clinical distinctions have been proposed. More technologically sophisticated methods to distinguish seizures from pseudoseizures include video-EEG and measuring "postictal" elevations in serum prolactin levels. However, because the EEG presentation of epilepsy is variable, obtaining a "normal" EEG recording does not exclude the presence of a seizure disorder. Similarly, the presence of a documented seizure disorder does not exclude the possibility of a pseudoseizure.

PAIN SYNDROMES IN CHILDREN

The diagnosis of pain disorder requires positive evidence of the role of psychological factors, not merely the physician's inability to explain a child's pain on a purely organic basis.¹¹

Positive evidence of the importance of psychological factors may include :

1. Onset of pain after specific adverse life event or in response to chronic stresses.
2. Disability or handicap out of proportion to reported pain
3. Clear secondary gain from the pain

The notion that "real" pain can be differentiated from "psychogenic" pain by the placebo response is unhelpful, since all types of pain are often responsive and placebo has been shown to actually increase the levels of endogenous opioids in the circulation.

A related clinical point of importance is that a child with organically caused pain but psychologically determined handicap may also need treatment.

RECURRENT ABDOMINAL PAIN

Recurrent abdominal pain (RAP) is a common and potentially disabling Pediatric problem. RAP is commonly defined as three or more episodes severe enough to affect the child's activities, occurring over a period longer than 3 months¹². Clinicians and researchers acknowledge that the most common aetiology of RAP is unknown and likely to be functional in origin. It occurs in approximately 10% of children^{13,14} and accounts for a significant proportion of primary and pediatric health care consultations and time missed from school. ⁹Decrease in daily function due to RAP may be significant; findings of increased school absenteeism have been reported as high as 1 day in 10 for patients with RAP.¹⁵

RAP is well studied from a psychological standpoint. Studies have reported increased symptoms of anxiety and depression in both the child with RAP and more interestingly in the mother, compared with healthy controls¹⁶; Walker and Greene¹⁷ have reported an increase in somatisation symptoms in parents of patients with RAP, while others have noted increased pain syndromes in family members of children with RAP^{18,19}.

The frequency of reporting physical symptom increases across childhood into adolescence and that female symptom reporting predominates. Most studies find no significant gender differences in physical symptom reporting prior to adolescence but an excess of somatic symptom reporting by females during adolescence^{20, 21}

PREVALENCE OF PSYCHIATRIC ILLNESS IN CHILDREN WITH SOMATISATION

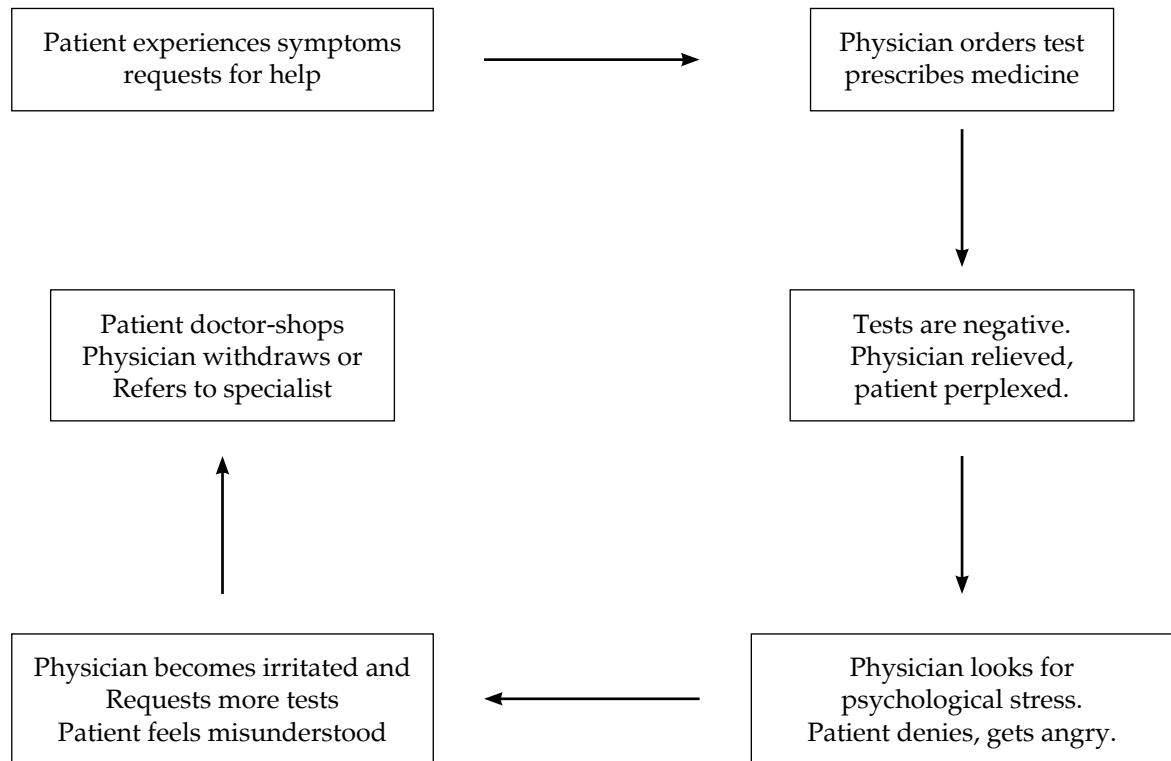
There are high levels of mental health problems amongst children with unexplained medical symptoms. 50% of children with high somatic scores have psychiatric disorders whereas the rate of psychiatric disorders in physically healthy children is 1 in 10.²¹.

The psychiatric diagnosis, which is most commonly applicable to children and adolescents who present with medically unexplained symptoms, is Adjustment Disorder. Common presentations are usually mixtures of physical and psychological symptoms (anxiety, temper-tantrums and irritability) arising in response to adverse life events or stresses. The physical symptoms are typically headaches, stomach and joint pains, but may be in any system and multiple.²²

IMPORTANCE OF RECOGNIZING SOMATISATION DISORDERS

Physical symptoms for which no satisfactory medical explanation is found are anxiety provoking for parents. This very frequently leads to doctor shopping and unnecessary medical investigations, hospitalisation and school absence can ensue. Adoption of sick role in childhood can lead not only to skewed psychological development but may leave scars which impair functioning in adult life.

Patient – Physician Interaction in Somatisation²³



AETIOLOGY

Psychosocial factors contribute to the development of Somatisation Disorders in the child. A combination of interacting factors in the child and his/her family and environment give rise to the symptoms. It is important to note however, that none of these are, on their own, either necessary or sufficient for such a presentation :²¹

The mediating influences of parents are also very important. Whether the child's unexplained physical symptom is ignored or propels the parents to seek medical advice or allows the child to adopt a 'sick role' determines the expression of the disorder.²⁴

There could be a wide range of precipitating and maintaining factors, in both child and family that may result in a clinically significant presentation.

For a comprehensive understanding of the matrix in which the child's symptoms have emerged, it is helpful to formulate the child's presentation in terms of predisposing factors, precipitating factors and maintaining factors in the child, the family and the environment²¹

PREDISPOSING FACTORS

FAMILY :

- Limited in verbal communication about emotional issues, including conflict
- 'Conditional caretaking' i.e. the culture in the family to look after the child only when s/he is sick
- Parental history of somatoform illness, anxiety or depression

- Problems with boundary setting for children
- Suspicious attitude to medical expertise

CHILD :

- Temperamental factors, including conscientiousness, emotional lability, vulnerability and worthlessness
- Earlier emotional abuse
- Low IQ
- Social-relating difficulties

PRECIPITATING FACTORS

CHILD :

- Anxiety, depression
- Life stresses of all types – overt and covert
- Physical illness
- Peer group problems
- Academic problems and cognitive limitations
- Low self-esteem
- Family
Life events/crises

MAINTAINING FACTORS IN CHILD, PARENTS AND PROFESSIONALS

- Current family relationship difficulties and the predicament is resolved by symptoms
- Current parental mental illness particularly anxiety and somatisation
- School problems
- Professional behaviour that reinforces anxieties and sick role

ASSESSMENT

The first task for the clinician is to unravel why the child is presenting with symptoms suggestive of Somatisation now. Possible organic aetiology needs to be excluded first, before entertaining this specific diagnosis. After the clinician is fairly confident that the child does not have organic ailments that account

for his/her symptoms, openly communicating and reassuring the parents is crucial.²⁵

The parents need to be told that the child does not have any life threatening ailments but he does have problems in the emotional sphere, which is giving rise to the symptoms. It is important that the clinician does not convey this message in a pejorative or accusing manner, stating nothing is wrong with the child and it is "just acting". Children with somatisation experience genuine psychological distress, and undermining the child's experience of anxiety is counterproductive.

EVIDENCE BASE OF MANAGEMENT

There is an embarrassing lack of data regarding what works in the management of Somatisation in Children. The presentations and context in which the disorder has developed are myriad in nature and 'one size fits all' kind of approach do not work.

In the following paragraphs, an attempt is made to highlight the evidence base of treatments of different kind of presentations and later a general approach to management of Somatisation is discussed.

RECURRENT ABDOMINAL PAIN

Despite its impact of pain syndromes in the child's life, there is a paucity of evidence to guide clinical practice in this complex area. Pharmacological treatments are used, based usually on data extrapolated from adults. The evidence for effectiveness is limited. Helping the parents to see the link between psychological and physical pain is appreciated by them and is felt to be influential in making them manage the pain better.^{20,26} There is evidence (Level B) that cognitive-behavioural therapy may be useful in improving pain and disability outcome in the short term.²⁰

HEADACHE AND MIGRAINE

Tension Headaches can be significantly reduced by relaxation training. In some, but not in all, relaxation training has been found to be superior to placebo in adolescents. The most encouraging aspect is

that it is shown to be effective as home based self administered treatment strategy.²⁰

A recent Cochrane systematic review identified 18 randomised controlled trials, of which 13 (12 trials of headache and one on the management of abdominal pain in children) provided data suitable for meta-analysis. The main finding of this review was that the number of patients needing to be treated to show benefit for psychological therapies producing more than 50% pain relief compared with control treatments was 2.32. This compares favourably with numbers needed to treat for other published treatments in chronic pain.²⁷

DISSOCIATIVE DISORDERS (PSEUDOSEIZURE, MOTOR PARALYSIS ETC)

In Indian setting, this is a very common presentation in children and adolescents. Evidence based treatment strategies are sadly lacking and data is limited to case reports only.²⁸

Available literature and clinical reports suggests that the possibility of sexual abuse should be borne in mind as abuse or sexual stresses are consistently reported in a minority of affected children. Most children improve dramatically in a short span of time but which ingredients are effective in achieving remission is not known. Close liaison between pediatrician and psychiatrist is needed²⁹ and physiotherapy, family work and above all an empathic approach to understand the child's predicament facilitates recovery. Clinicians are needed to act as the child's advocate and attempts to "shame" the child to give up his/her symptoms" can be counter-productive and damaging.

PRINCIPLES OF TREATMENT

This has several strands. The intensity and duration of intervention can vary from one off session to a short inpatient admission. Contact with school is very helpful.

ENGAGEMENT PROCESS AND ARRIVING AT A CLINICAL FORMULATION

It is helpful to bear in mind that the family has come to the clinician with unexplained physical symptoms e.g. fainting spells or abdominal pain. To help the family from moving on from their search of an organic cause to something more intangible and in the psychological domain, needs patience and skill in gaining the confidence of the family/parents.

The first task is therefore gaining the family's confidence. Listening carefully to the history of the illness, its impact and management that has taken place so far, helps in understanding family illness beliefs and the level of conviction that the illness has a physical cause.

GAUGING THE LEVEL OF SATISFACTION WITH PHYSICAL INVESTIGATIONS AND EXPLORING WHETHER THE PARENTS ARE HAPPY WITH THE EXPLANATIONS THAT HAVE BEEN OFFERED TO THEM SO FAR ARE THE NEXT STEPS

The initial interview and the manner in which psychological issues are explored are keys to a successful forging of therapeutic relationship. Some families remain anxious that undisclosed underlying physical disorder is as yet uncovered. Conveying the idea that lack of physical ailments does not mean lack of underlying physiological mechanisms for child's symptoms is needed. Aim is to highlight the mind-body link and analogies are useful. Giving examples of tension headache, physical discomfort affected by psychosocial factors e.g. asthma worsened by emotional distress or panic attack precipitated by fear helps the parents to understand the mind-body link.

THE CLINICIAN'S AIM DURING THIS INTERVIEW IS TO ESTABLISH A FORMULATION OF THE ILLNESS THAT INCORPORATES PRE-EXISTING VULNERABILITIES, PRECIPITATING ('TRIGGERING') EVENTS OR ILLNESS AND MAINTAINING ('SECONDARY GAIN') FACTORS

Sharing this 'predisposing, precipitating, maintaining' approach to analysis with the family should follow once the assessment is completed. Parents usually can begin to think of triggers themselves once they gain an understanding of what could have led on to the symptom presentation.

At this stage stressing that recovery through rehabilitation can be achieved is crucial. Resume gradually, rather than avoid, activities normal for the developmental stage. This is crucially important. So, if the child has stopped going to school, plan and execute a school re-integration programme. Encourage parents/carers to facilitate age appropriate activities which may have been stopped due to the child's presenting symptoms.

For the child, encouraging him/her to express emotional distress, underlying worries or fears through direct verbal means rather than through physical complaints needs to happen.

Finally, address the triggering factor. This can range from bullying in school, parental over-expectation, one of chastisement of the child for bad behaviour to marital conflict in parents or sexual abuse. Whatever is the trigger, it has to be addressed with the child and the family and often involving the school and key members of the wider community may also become essential.³⁰

WHAT HAPPENS TO THESE CHILDREN WHEN THEY GROW UP?

Eminson has summarised the available outcome data. Outcomes may be considered in relation to the future risk of

- (a) psychiatric disorders or symptoms,
- (b) continuing unexplained physical symptoms

It has become increasingly clear that the experience of excess or chronic physical symptoms in childhood and adolescence is associated with psychiatric disorders (especially depression and anxiety) and in adulthood with excess unexplained hospitalisations^{31,32}. This is the case even when psychiatric symptoms were not apparently present in childhood.

The results of different studies and also outcomes in boys and girls are inconsistent, reinforcing the need for more research and greater specificity in the comparisons made.³³

Some data are available on the longer-term course of RAP. Children who complained of stomach-aches at age 4 were three times as likely to have similar complaints on follow-up at age 10 than were non-complaining peers³⁴. Another study which followed up 132 children with recurrent abdominal pain for 5 years showed that approximately 1 in 7 children have poor outcome with respect to symptoms and functional impairments³⁵.

CONCLUSIONS

Medically unexplained symptoms in children and adolescents are common presentations in pediatric practice. However, the syndrome remains poorly researched and guidelines for management are not easily available. A significant proportion of children exhibit marked functional impairment, psychiatric pathology and many have parents with anxiety, depression and somatisation disorders. Therefore, a thorough psychosocial assessment of all children presenting with somatisation is warranted and therapeutically addressing the factors contributing to the genesis of symptoms does lead to symptom resolution.

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